CDP-K1

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

Compact disc player

Frequency response	2 Hz – 20 kHz ±0.5 dB
Signal to noise ratio	More than 98 dB
Dynamic range	More than 92 dB
Harmonic distortion	Less than 0.008 %
Channel separation	More than 95 dB
LINE OUT (phono jacks)	Output level 1.5 V (at 50 kilohms) Load impedance over 10 kilohms
PHONES (stereo phone jack)	Output level max. 10 mW Load impedance 32 ohms

Input

MIC1/MIC2 jack	Standard jack 1 mV (Impedance blow 1 kilohms)

General

Power requirements	UK model 240V AC, 50/60Hz AEP model 220–230V AC, 50/60Hz US, Canadian model 120V AC, 60Hz E, Saudi Arabia model 110–120, 220–240 V AC adjustable, 50/60Hz
Power consumption	16 W
Dimensions (approx., including projections)	355 × 95 × 310 mm (w/h/d) (14 × $3^3/_4$ × $12^1/_4$ inches)
Weight (approx.)	3.2 kg (7 lbs 1 oz)

Model Name Using Similar Mechanism	CDP-391
CD Mechanism Type	CDM14-5BD1
Optical Pick-Up Block Type	BU-5BD1

Supplied accessories

	CDP-K1
Audio cord	1 (2 phono plugs – 2 phono plugs)
Remote commander	RM-DK11
R6 (size AA) batteries	2

Design and specifications subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

COMPACT DISC PLAYER

SONY®

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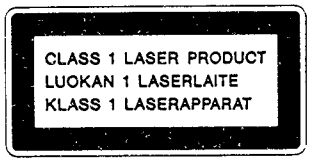
For the united Kingdom and European countries



This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

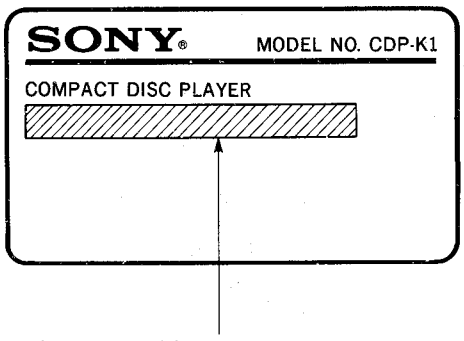
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

MODEL IDENTIFICATION

—Specification Label—



US, Canadian model:
AC: 120V 60Hz 16W
AEP model: AC: 220—230V~50/60Hz
UK model: 240V~50/60Hz
E, Saudi Arabia model:
AC: 110—120, 220—240~50/60Hz 16W

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

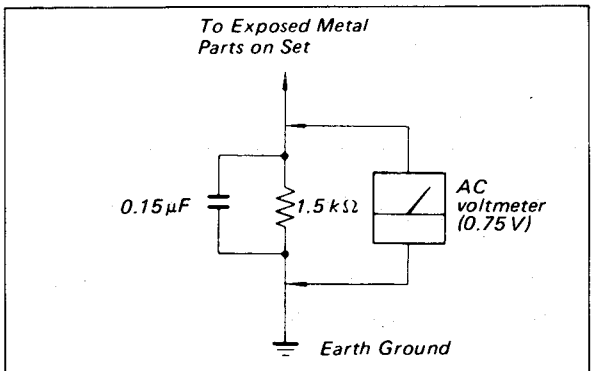


Fig. A. Using an AC voltmeter to check AC leakage.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties
   - Material: GaAlAs
   - Wavelength: 780 nm
   - Emission Duration: continuous
   - Laser Output Power: less than 44.6 μW*
     * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

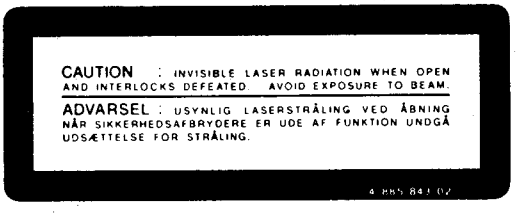
1. Laser-didoe data
   - Materiale: GaAlAs
   - Bølgelængde: 780 nm
   - Udstråling: Kontinuerlig
   - Laseroutput: Max. 0,4 mW*
     * Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
   - Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laser-dioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.

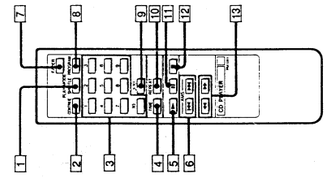
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of Controls

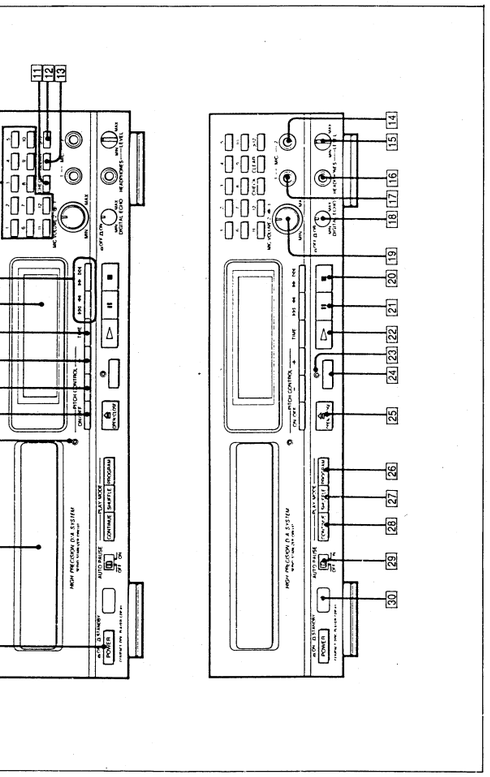
Remote Commander



Refer to the pages indicated in ● for details.

[1] SHUFFLE button ●
[2] CONTINUE button ●●
[3] Numeric buttons ●
[4] TIME button ●
[5] ▲ (play) button ●
[6] I◀◀/▶▶I AMS buttons ●●●●
[7] FADER button ●
[8] PGM (program) button ●
[9] >10 (over 10) button ●
[10] REPEAT button ●
[11] ❚❚ (pause) button ●
[12] ■ (stop) button ●
[13] ▼◀◀/▶▶▲ (manual search) buttons ●●

Front Panel



Refer to the pages indicated in ● for details.

[1] Power switch ●
[2] Disc tray ●
[3] PITCH CONTROL indicator ●
[4] PITCH CONTROL ON/OFF button ●
[5] PITCH CONTROL −button ●
[6] PITCH CONTROL +button ●
[7] TIME button ●
[8] Display window
[9] I◀◀ ◀◀/▶▶ ▶▶I (AMS*/RMS**/manual search) buttons ●
●●●
[10] Numeric buttons ●
[11] CHECK (program check) button ●●
[12] >12 button ●
[13] CLEAR (program clear) button ●●
[14] MIC jack2 ●
[15] PHONES LEVEL control
[16] PHONES jack
[17] MIC jack1 ●
[18] DIGITAL ECHO button/level control ●
[19] MIC volume control ●
[20] ■ (stop) button ●●
[21] ❚❚ (pause) button ●●
[22] ▲ play button ●●
[23] KARAOKE PON/VOCAL REDUCTION Indicator ●
[24] KARAOKE PON/VOCAL REDUCTION button ●
[25] ⏏ (open/close) button ●●
[26] PROGRAM button ●●
[27] SHUFFLE button ●
[28] CONTINUE button ●●
[29] AUTO PAUSE Switch ●
[30] Remote sensor ●

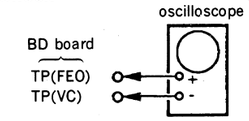
* AMS is the abbreviation of Automatic Music Sensor.
** RMS is the abbreviation of Random Music Sensor.

SECTION 2
ELECTRICAL BLOCK CHECKING

Note :

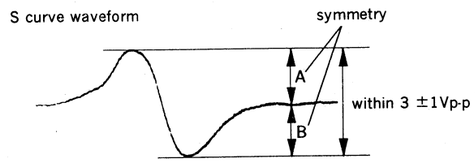
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within 3±1Vp-p.

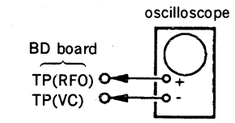


5. After check, remove the lead wire connected in step 2.

Note : ● Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.

● Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

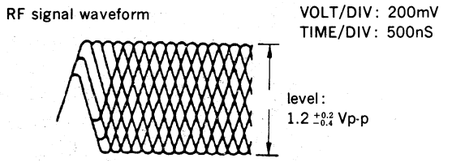


Procedure :

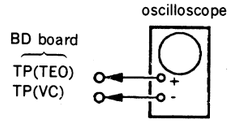
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

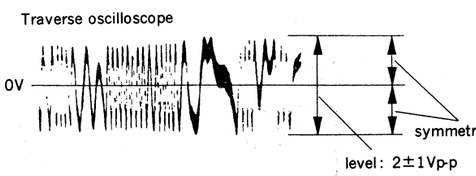


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

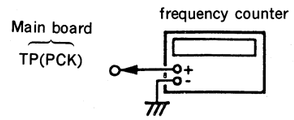


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PCK) with lead wire.

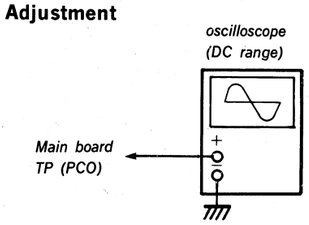


2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

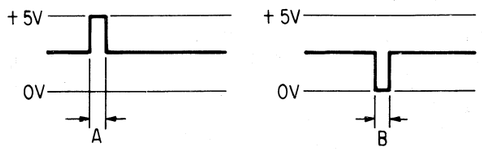
Focus/Tracking Gain

This gain has a margin, so even if it is slightly off.
There is no problem.
Therefore, do not perform, this adjustment.
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

VCO Adjustment

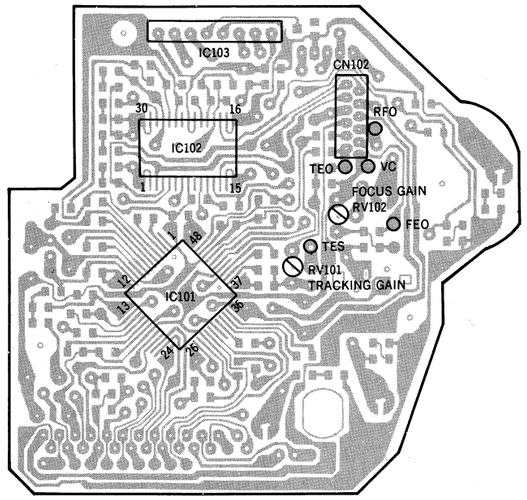


1. Connect oscilloscope to test point TP (RFO) on Main board.
2. Turn POWER switch on.
3. Adjust CT301 so that pulse width A or B are 0.5msec.

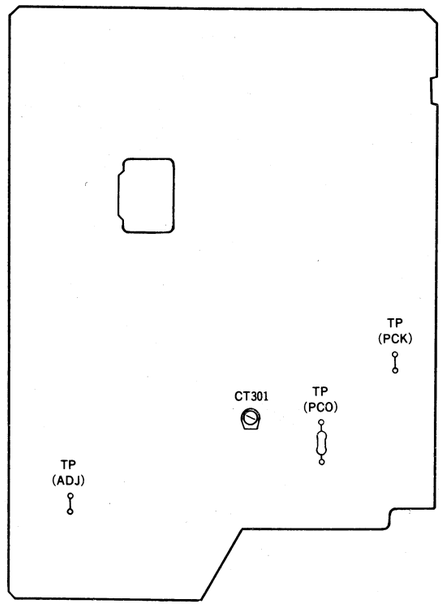


Adjustment Location :

BD board (Conductor Side)

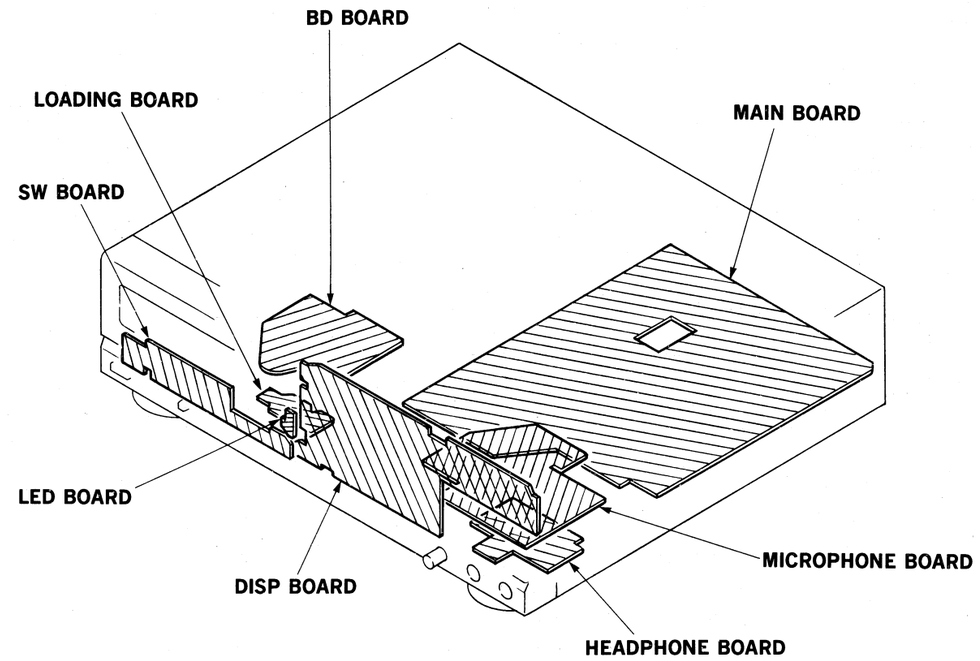


Main board (Componet Side)



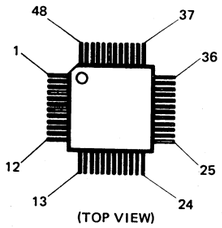
SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION



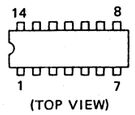
3-2. SEMICONDUCTOR LEAD LAYOUTS

CXA1372Q



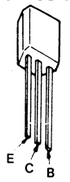
(TOP VIEW)

MC74HCU04N
TC4066BPHB

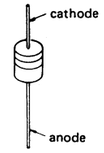


(TOP VIEW)

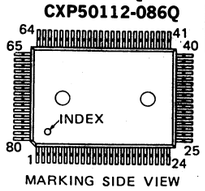
DTA144ES
DTC144ES
2SC2458-YGR



RD5.1ES-B2
RD6.8ES-B2
1SS202-1
11ES2

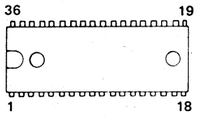


CXD2500AQ
CXP50112-086Q



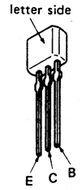
MARKING SIDE VIEW

M50195P

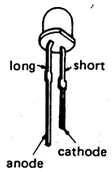


(TOP VIEW)

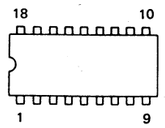
2SA1175-HFE



BR3371X

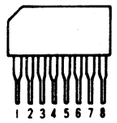


CXD2554P

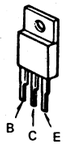


(TOP VIEW)

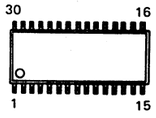
M5218AL
M54641L



2SB1274SA-R
2SD1913SA-R

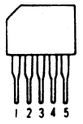


LA6532M

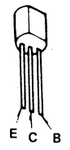


(TOP VIEW)

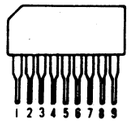
M5293L



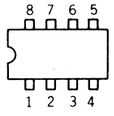
2SC3623A-LK



LM2903S
RC4556S

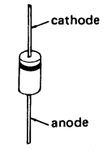


RC4558P

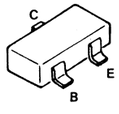


(TOP VIEW)

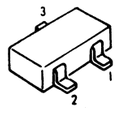
HZS7C3L



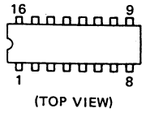
DTC144EK



RD4.7M-B1



LM3364K-15
M5290P-16
PCM56P

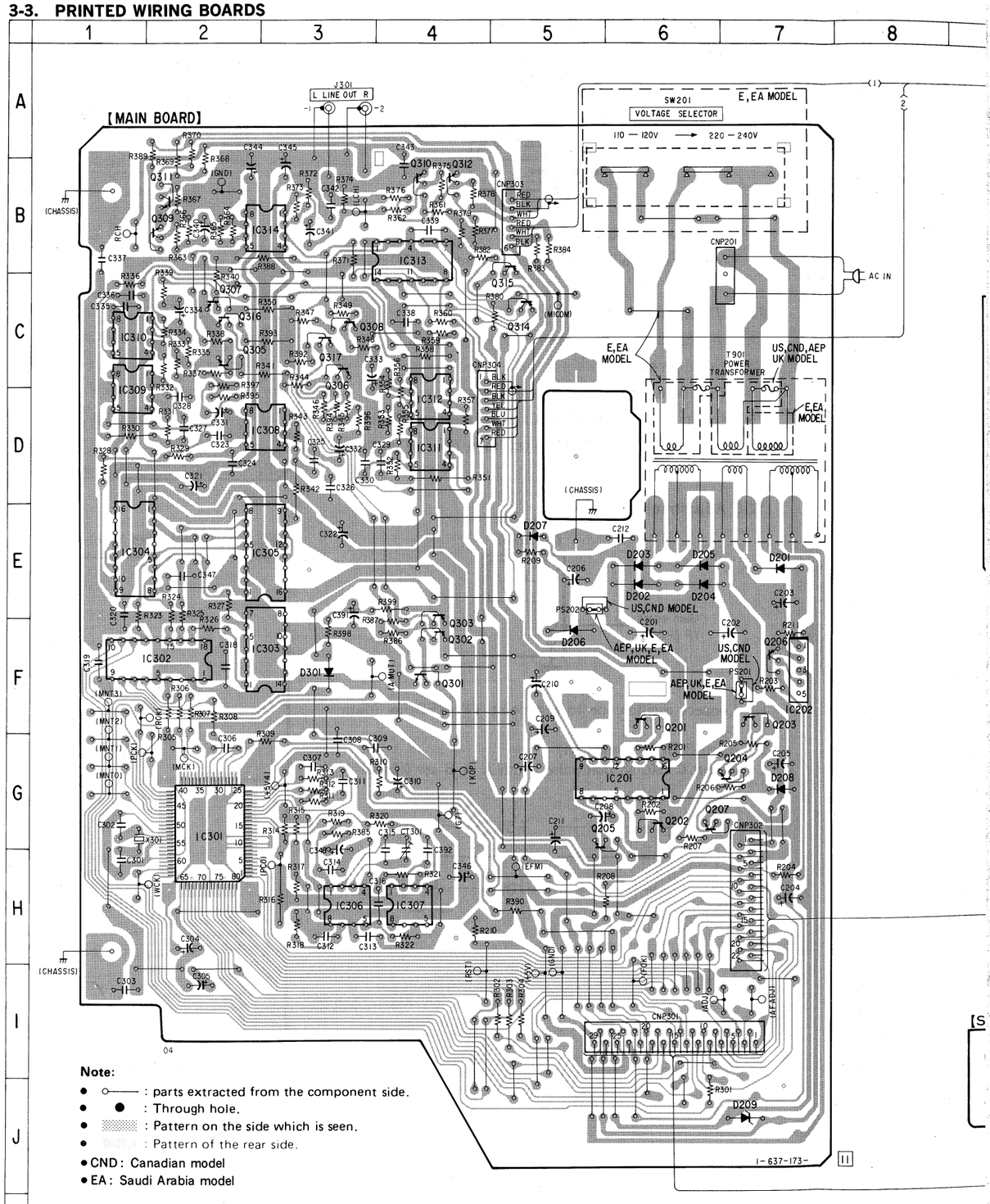


(TOP VIEW)

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	A-11	Q311	B-2
D201	E-7	Q312	B-4
D202	E-6	Q314	C-5
D203	E-6	Q315	C-5
D204	E-6	Q316	C-2
D205	E-6	Q317	C-3
D206	F-5	Q501	C-21
D207	E-5	Q502	D-19
D208	G-7	Q503	E-18
D209	J-7	Q504	E-18
D301	F-3		
D401	H-17		
D402	H-14		
D501	D-20		
D502	D-19		
D503	B-18		
IC101	D-10		
IC102	B-10		
IC103	A-10		
IC201	G-6		
IC202	F-7		
IC301	G-2		
IC302	F-2		
IC303	F-3		
IC304	E-1		
IC305	E-3		
IC306	H-3		
IC307	H-4		
IC308	D-3		
IC309	D-1		
IC310	C-1		
IC311	D-4		
IC312	D-4		
IC313	B-4		
IC314	B-3		
IC401	I-17		
IC402	I-10		
IC501	D-24		
IC502	D-20		
IC503	D-19		
IC504	C-18		
IC505	C-19		
IC506	D-17		
Q101	D-11		
Q201	F-6		
Q202	G-6		
Q203	F-7		
Q204	G-7		
Q205	G-5		
Q206	F-7		
Q207	G-6		
Q301	F-4		
Q302	F-4		
Q303	F-4		
Q305	C-2		
Q306	C-3		
Q307	C-2		
Q308	C-3		
Q309	B-2		
Q310	B-4		

3-3. PRINTED WIRING BOARDS



Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.
- CND : Canadian model
- EA : Saudi Arabia model

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

A MODEL

AC IN

US,CND,AEP
UK MODEL

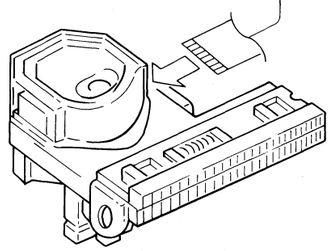
E,EA
MODEL

[BD BOARD]

IC103 D101 CN103 CN102 J101 J102 IC102 M102 SPINDLE MOTOR RV102 RV101 S101 LIM SW IC101 Q101 M101 SLED MOTOR CN101

1-632-203- 21

OPTICAL
PICK-UP BLOCK
KSS-240A



[LOADING BOARD]

CN301 M191 LOADING MOTOR S192 IN SW S191 OUT SW

1-632-202- 11

[MICROPHONE BOARD]

IC504 IC505 IC506 IC503 IC502 Q501 Q502 Q503 Q504 D502 D503 RV503 MIC VOLUME2 (CHASSIS) MIC

1-637-174- 11

[HEADPHONE BOARD]

CNP502 RV502 DIGITAL ECHO OFF ON CNP501 IC501 RV501 LEVEL (CHASSIS) J501 HEADPHONES

1-637-175- 11

[LED BOARD]

CN405 D402 PITCH CONTROL

1-637-178 11

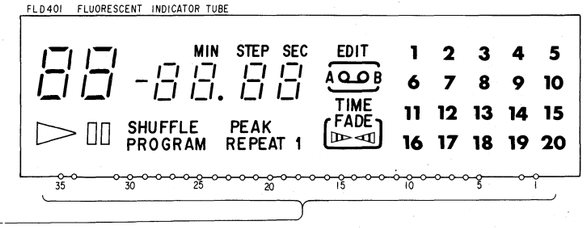
[DISP BOARD]

S427 OPEN/CLOSE S421 ON/OFF S428 KARAOKE PON/VOCAL REDUCTION S429 S422 S423 S424 S425 S426 S430 S431 CN404 D401 PITCH CONTROL TIME CN401 IC401 FLD401 CN403 CN402 S401 AUTO PAUSE REPEAT SHUFFLE PROGRAM PLAY MODE S403 S404 S405 S406 STANDBY ON POWER IC402 CNP402 CNP403 CNP405 CNP404 S416 S417 S418 CHECK S419 CLEAR S420 S411 S412 S413 S414 S415 S410 S407 S408 S409

1-637-177- 11

1-637-176-

FLD401 FLUORESCENT INDICATOR TUBE



3-4. SCHEMATIC DIAGRAM —MAIN SECTION—

• Refer to page 19 for IC Block Diagrams.

• Waveforms

1 TP(RF O) : PLAY mode (IC101 (40))
1.3Vp-p

2 TP(FEO) : PLAY mode
APPROX. 500mVp-p
-2.5V

3 TP(FEO) : PLAY mode
APPROX. 100mVp-p
-2.5V

4 IC401 (72)
4MHz
5.4Vp-p

5 IC401 (74)
4MHz
5.4Vp-p

6 IC301 (4) : PLAY mode
2.5Vp-p
7.5 µsec

7 IC301 (32)
5Vp-p
23µsec

8 IC305 (35)
5Vp-p
1.3nsec

9 IC305 (53)
16.9MHz
3.3Vp-p

10 IC305 (54)
16.9MHz
3.6Vp-p

11 IC504 (22)
4MHz
5.6Vp-p

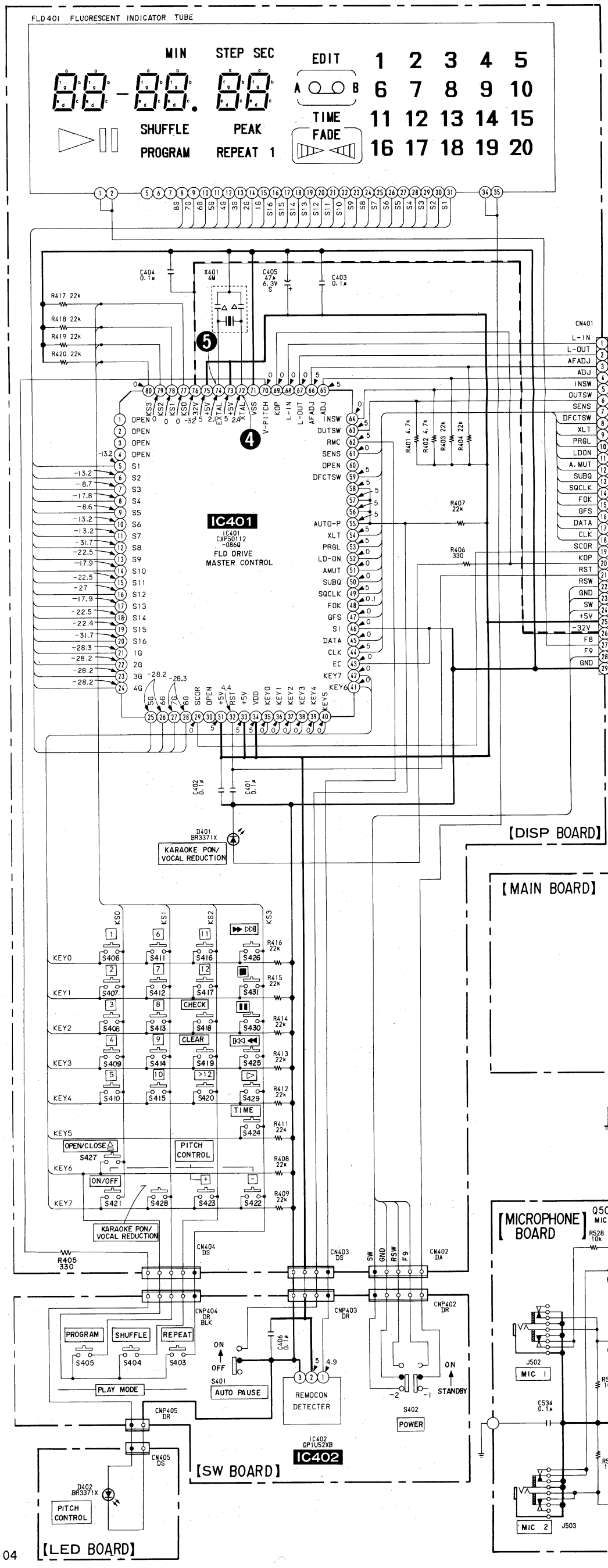
12 IC504 (23)
4MHz
3.9Vp-p

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line
- ▬ ▬ : B– Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
- CND : Canadian model
- EA : Saudi Arabia model



7 8 9 10 11 12 13 14 15 16 17 18

TO BD BOARD CN101

CNP302

IC301 CXD2500AQ DIGITAL SIGNAL PROCESSOR /CLV SERVO

IC302 DIGITAL FILTER

IC303 MC74HCU04AN INVERTER

IC304 IC305 D/A CONVERTER

IC306 VCO

IC307 INVERTER

IC308 FILTER

IC309 BUFFER/FILTER

IC310 AMP

IC311 BUFFER/FILTER

IC312 MIX/AMP

IC201 +/-5V REG

Q201 +5V REG

Q202 -5V REG

Q203,204 REG

Q205 DTC144ES-TP RESET SWITCH

Q206 SWITCH

Q207 DTC144ES-TP SWITCH

Q301,302,303 KOP SWITCH

Q316,317 KPO SWITCH

Q307,308 KPO SWITCH

【DISP BOARD】

【MAIN BOARD】

【MICROPHONE BOARD】

Q501,502 MIC SWITCH

IC502 MIC AMP

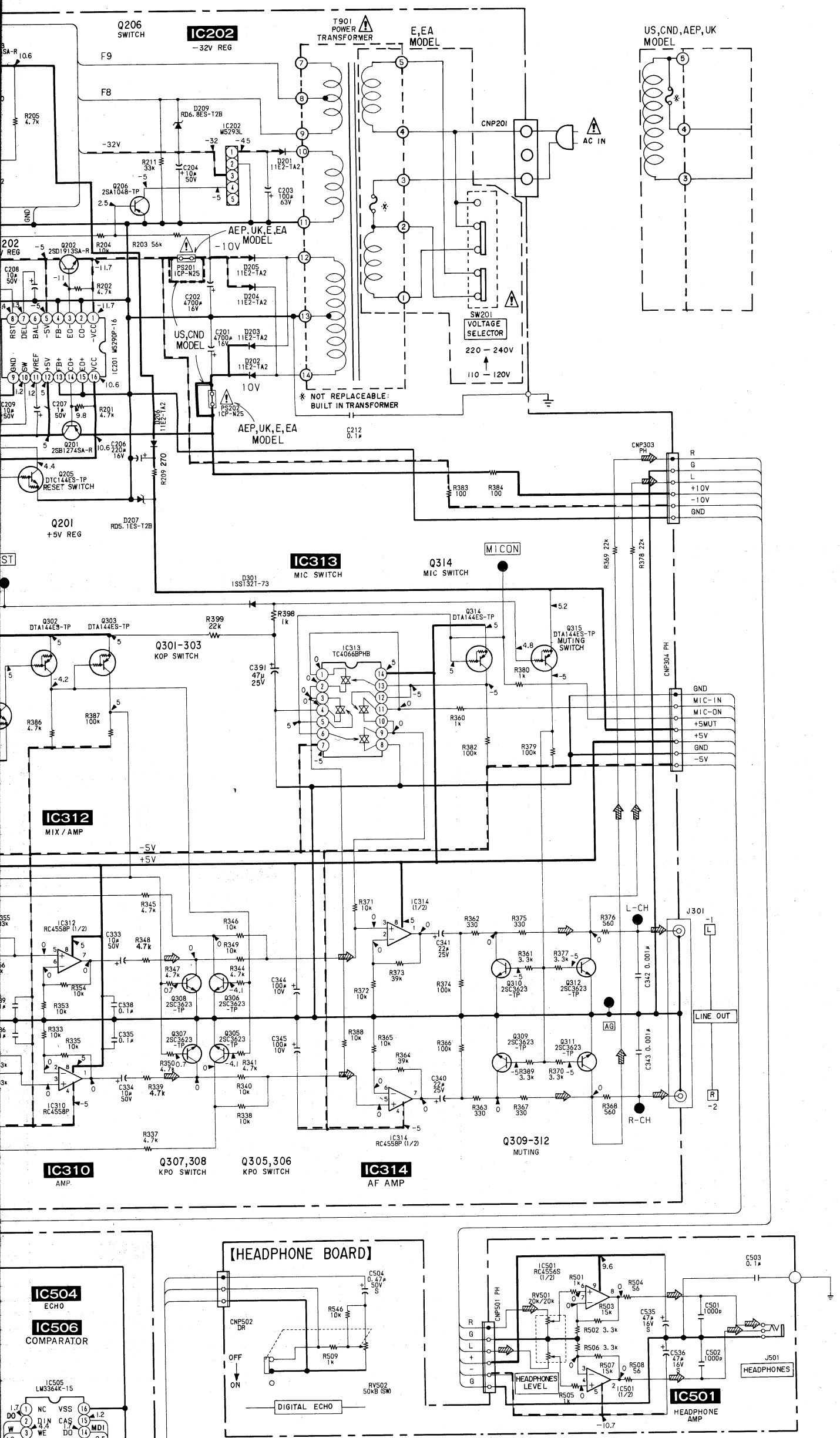
IC503 MIX AMP

IC504 ECHO

IC505 D RAM

IC506 COMPARATOR

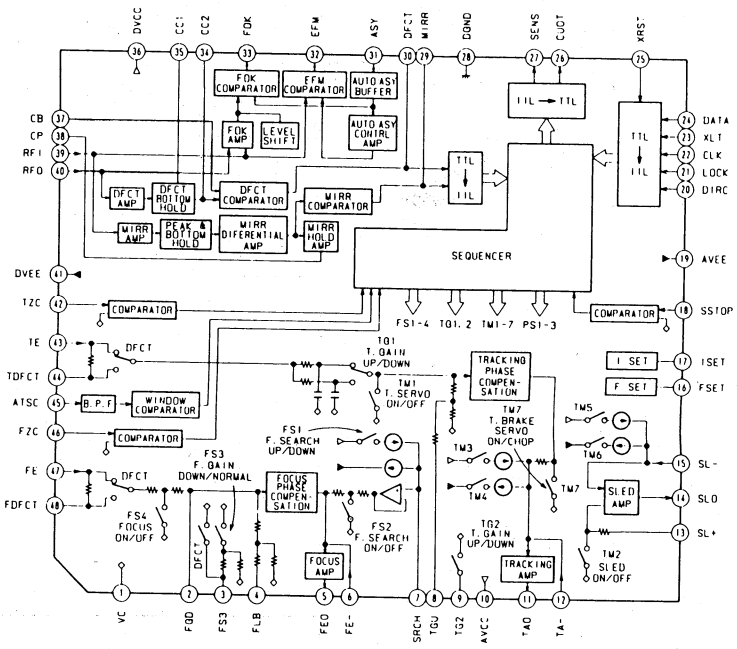
Q503,504 MUTING


Q206
SWITCH
IC202
-32V REG
T901
POWER TRANSFORMER
E,EA MODEL
US,CND,AEP,UK MODEL
CNP201
AC IN
SW201
VOLTAGE SELECTOR
220 — 240V
110 — 120V
AEP,UK,E,EA MODEL
US,CND MODEL
NOT REPLACEABLE: BUILT IN TRANSFORMER
Q201
+5V REG
IC313
MIC SWITCH
Q314
MIC SWITCH
MICON
Q301-303
KOP SWITCH
IC312
MIX / AMP
IC310
AMP.
Q307,308
KPO SWITCH
Q305,306
KPO SWITCH
IC314
AF AMP
Q309-312
MUTING
L-CH
R-CH
J301
LINE OUT
CNP303 PH
CNP304 PH
GND
MIC-IN
MIC-ON
+5MUT
+5V
-5V
+10V
-10V
【HEADPHONE BOARD】
CNP502 DR
OFF
ON
DIGITAL ECHO
RV502 50kB (SW)
CNP501 PH
HEADPHONES LEVEL
J501
HEADPHONES
IC501
HEADPHONE AMP
IC504
ECHO
IC506
COMPARATOR
IC505
D RAM

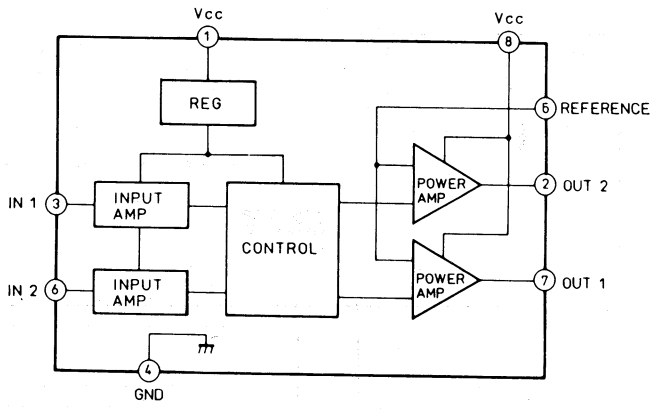
3-5. SCHEMATIC DIAGRAM —MD SECTION— • Refer to page 13 for Waveforms.

3-6. IC BLOCK DIAGRAMS

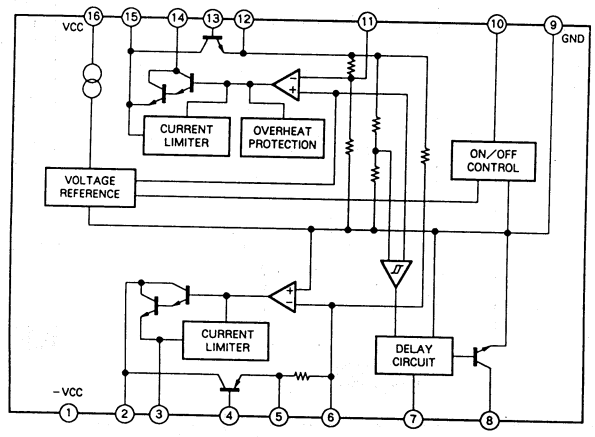
IC101 CXA1372Q



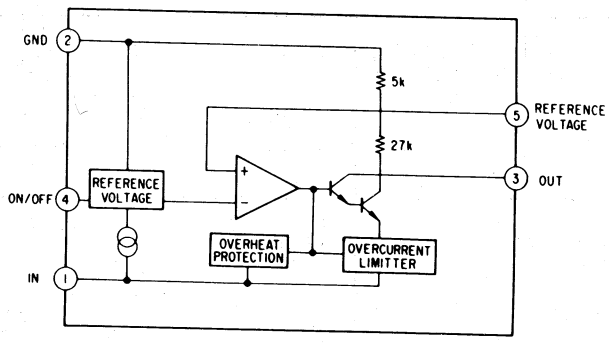
IC103 M54641L



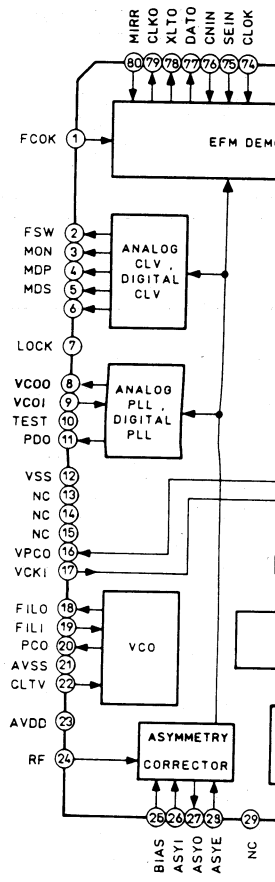
IC201 M5290P



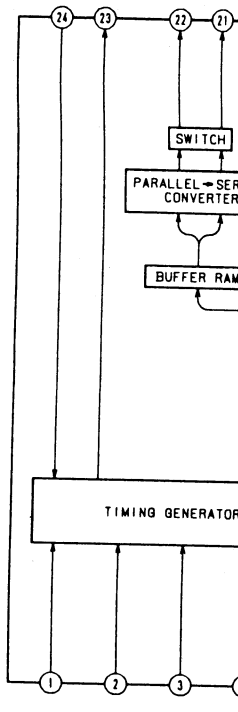
IC202 M5293L



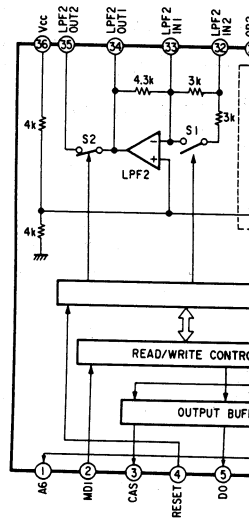
IC301 CXD2500

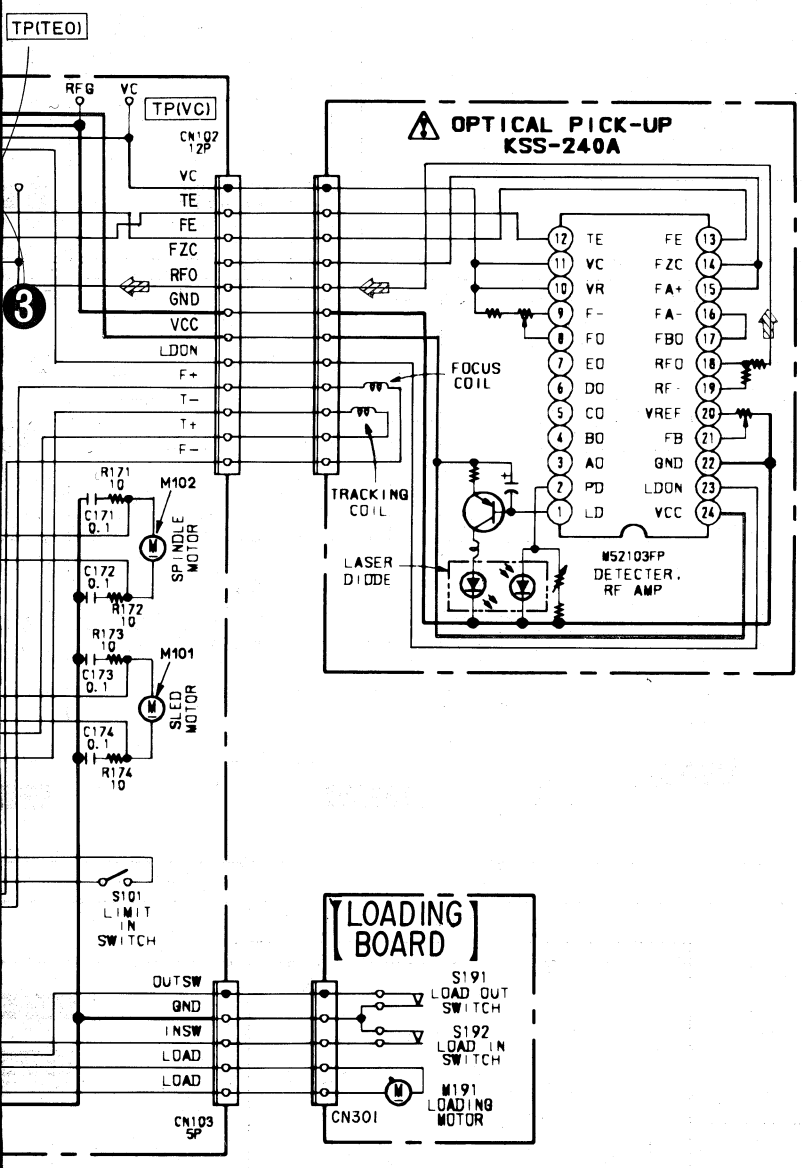


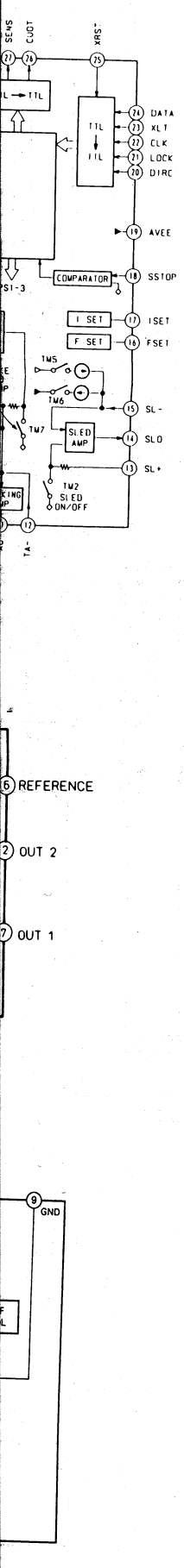
IC302 CXD2554



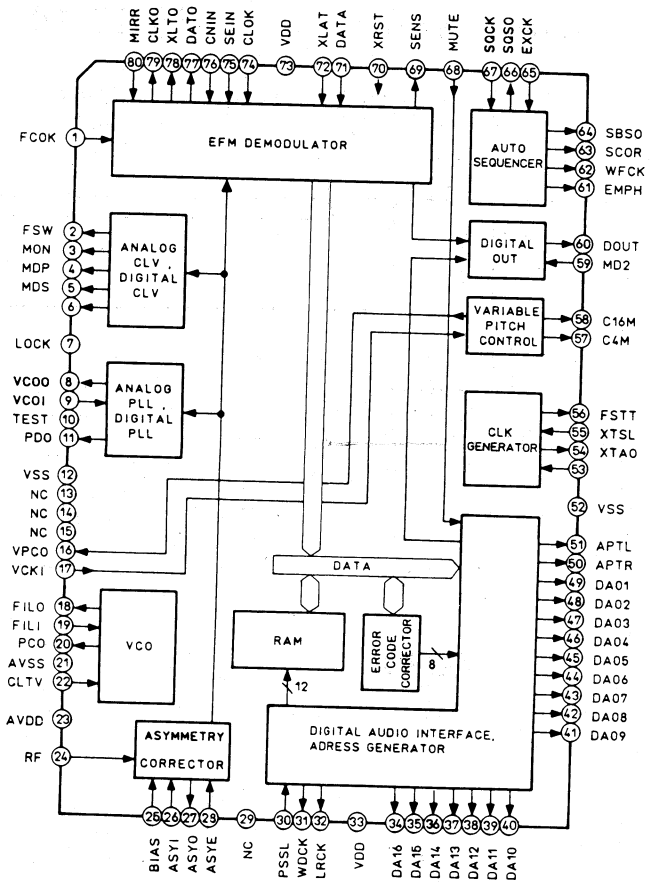
IC504 M50195P



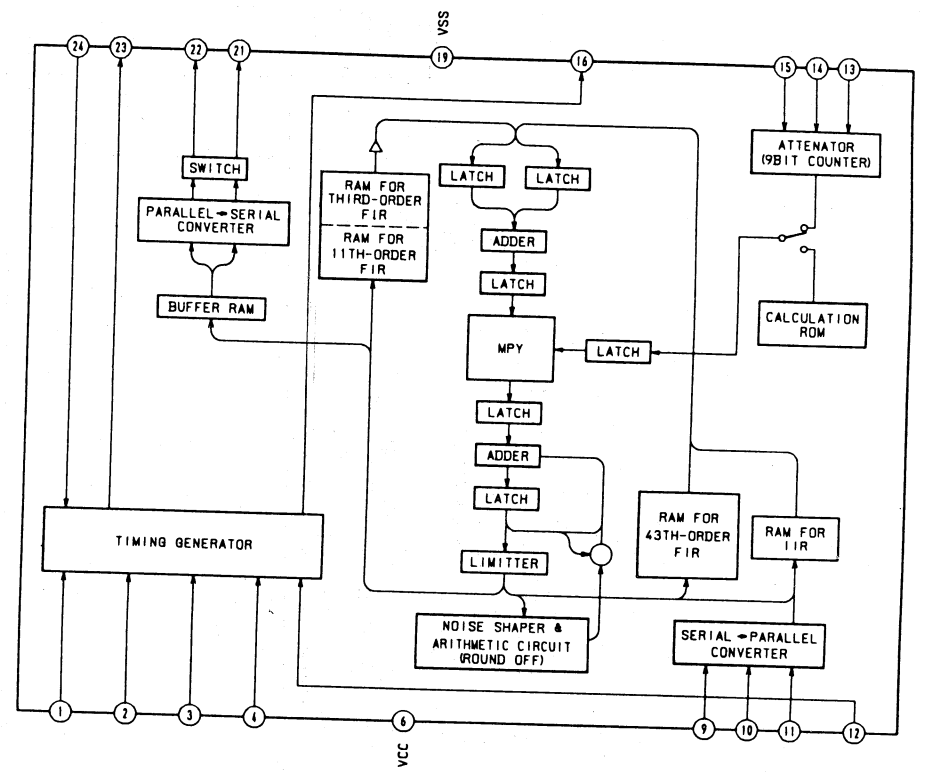




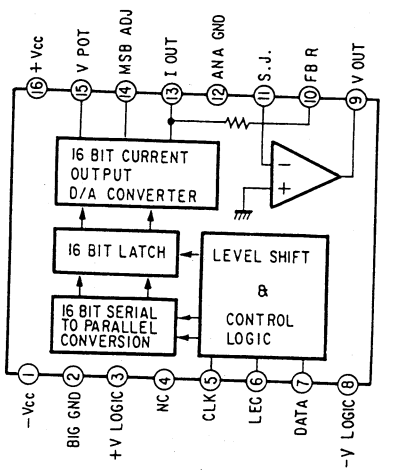
IC301 CXD2500AQ



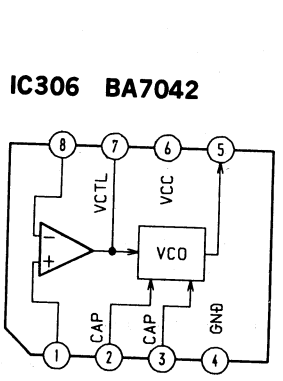
IC302 CXD2554



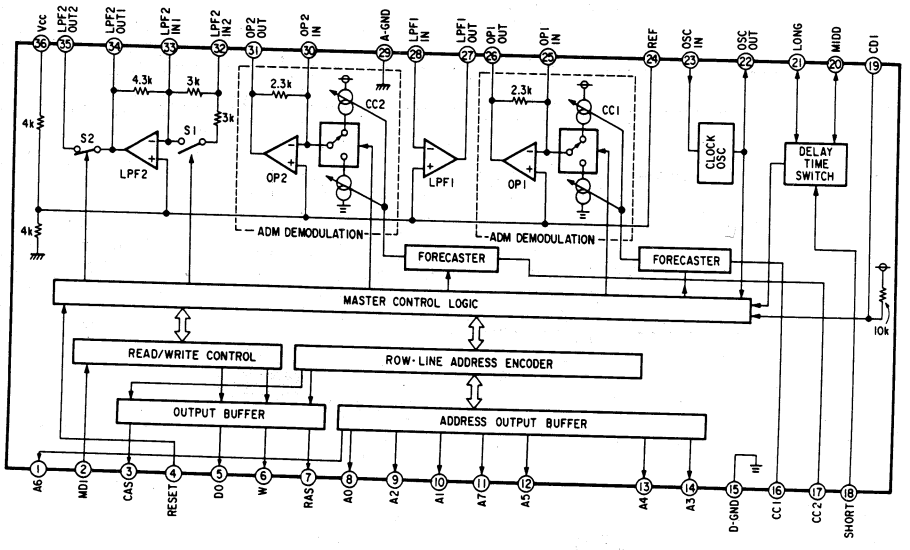
IC304, 305 PCM56P



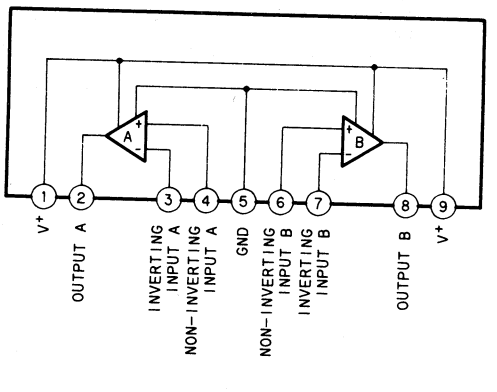
IC306 BA7042



IC504 M50195P



IC506 LM2903S



SECTION 4
EXPLODED VIEWS

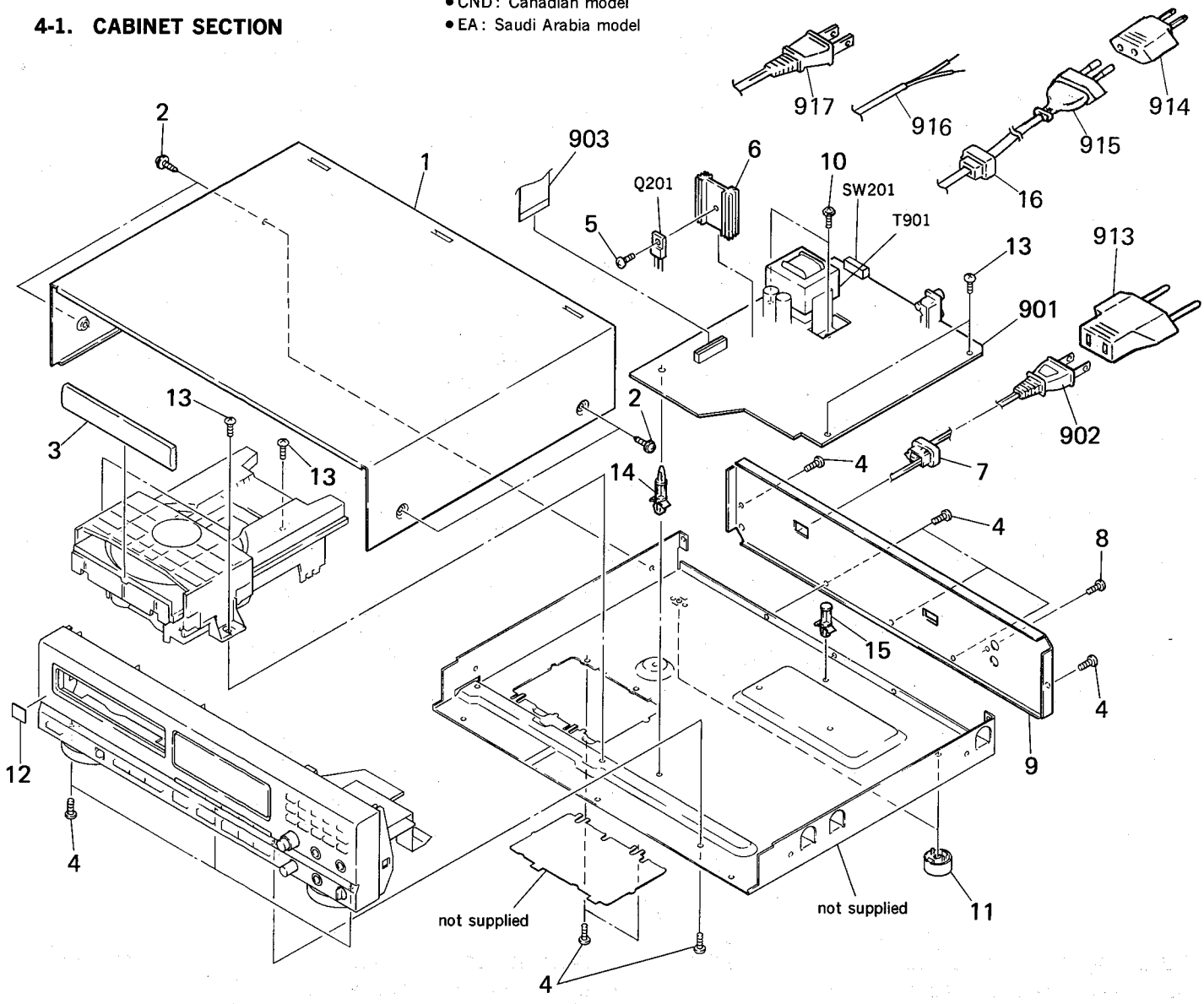
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) ... KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color
- CND: Canadian model
- EA: Saudi Arabia model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

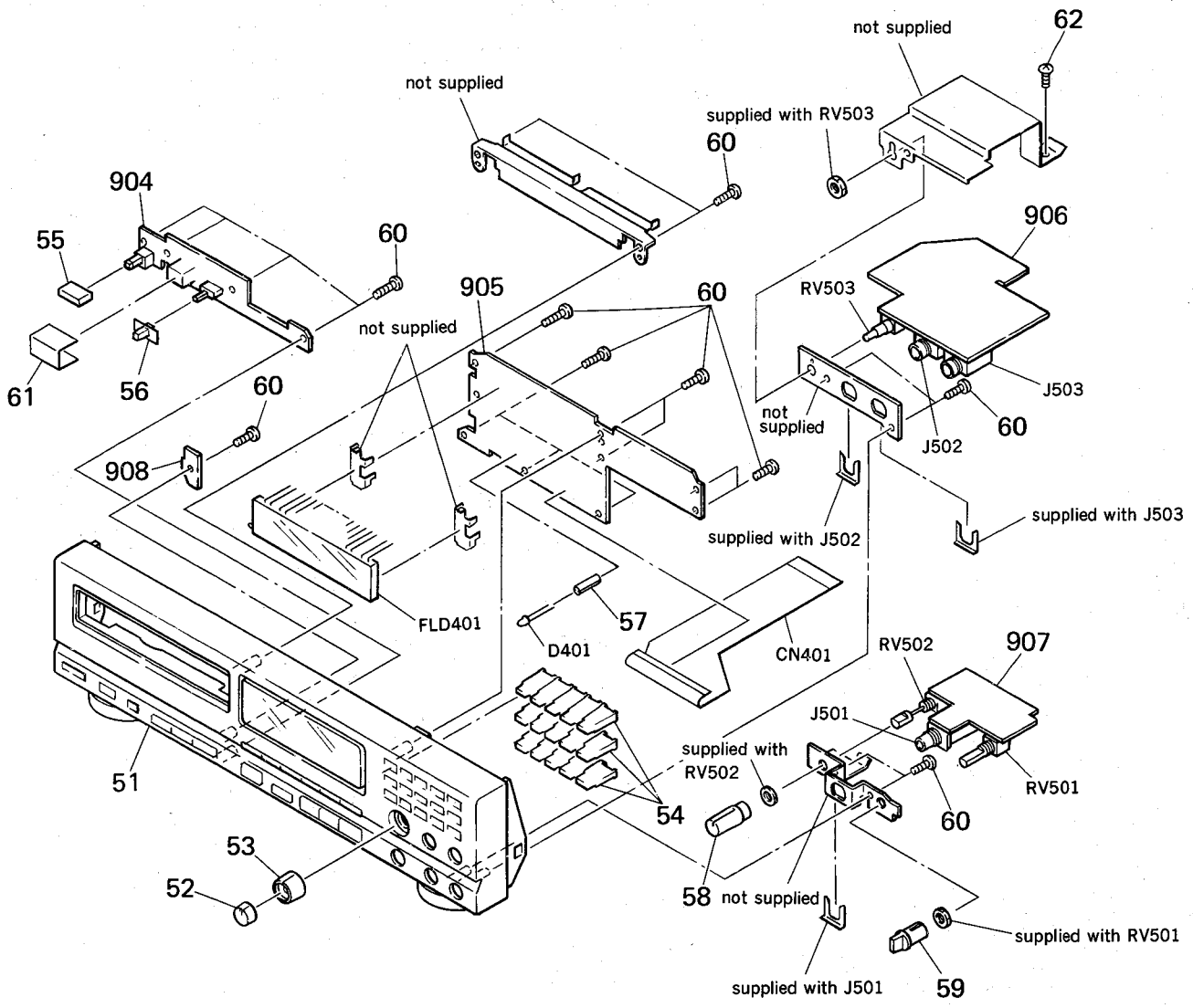
4-1. CABINET SECTION



Ref.No	Part No.	Description	Remarks
1	4-919-376-31	CASE	
2	3-704-366-31	SCREW (CASE) (M3X6)	
3	4-927-339-01	PANEL, LOADING	
4	7-682-547-09	SCREW +BVTT 3X6 (S)	
5	7-682-147-15	SCREW, TR	
6	*4-908-502-01	HEAT SINK	
7	*3-703-571-11	(E)....BUSHING (S) (4516), CORD	
8	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
9	*4-941-670-11	(E, EA)....PANEL, BACK	
9	*4-941-670-22	(AEP)....PANEL, BACK	
9	*4-941-670-31	(UK)....PANEL, BACK	
9	*4-941-670-51	(US)....PANEL, BACK	
9	*4-941-670-61	(CND)....PANEL, BACK	
10	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6	
11	4-933-601-01	FOOT	
12	*3-703-710-41	STICKER, SONY SYMBOL (12)	
13	7-682-547-04	SCREW +BVTT 3X6 (S)	
14	*4-924-098-31	HOLDER, PC BOARD	

Ref.No	Part No.	Description	Remarks
15	*3-349-025-31	HOLDER, PC BOARD	
16	3-703-244-00	(EXCEPT FOR E)....BUSHING (S) (2104) CORD	
901	*A-4617-647-A	(AEP, UK)....MOUNTED PCB, MAIN	
901	*A-4617-651-A	(E, EA)....MOUNTED PCB, MAIN	
901	*A-4617-910-A	(US, CND)....MOUNTED PCB, MAIN	
902	⚠ 1-575-653-21	(E)....CORD, POWER	
903	1-575-160-11	WIRE, FLAT TYPE (22 CORE)	
913	⚠ 1-569-007-11	(E)....ADAPTER, CONVERSION 2P	
914	⚠ 1-569-008-11	(EA)....ADAPTER, CONVERSION 2P	
915	⚠ 1-575-651-21	(AEP, EA)....CORD, POWER	
916	⚠ 1-558-946-21	(UK)....CORD, POWER	
917	⚠ 1-590-836-11	(US, CND)....CORD, POWER	
Q201	8-729-111-67	TRANSISTOR 2SB1274SA-R	
SW201	⚠ 1-571-722-11	(E, EA)....SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)	
T901	⚠ 1-449-921-11	(US, CND)....TRANSFORMER, POWER	
T901	⚠ 1-449-922-11	(AEP, UK)....TRANSFORMER, POWER	
T901	⚠ 1-449-923-11	(E, EA)....TRANSFORMER, POWER	

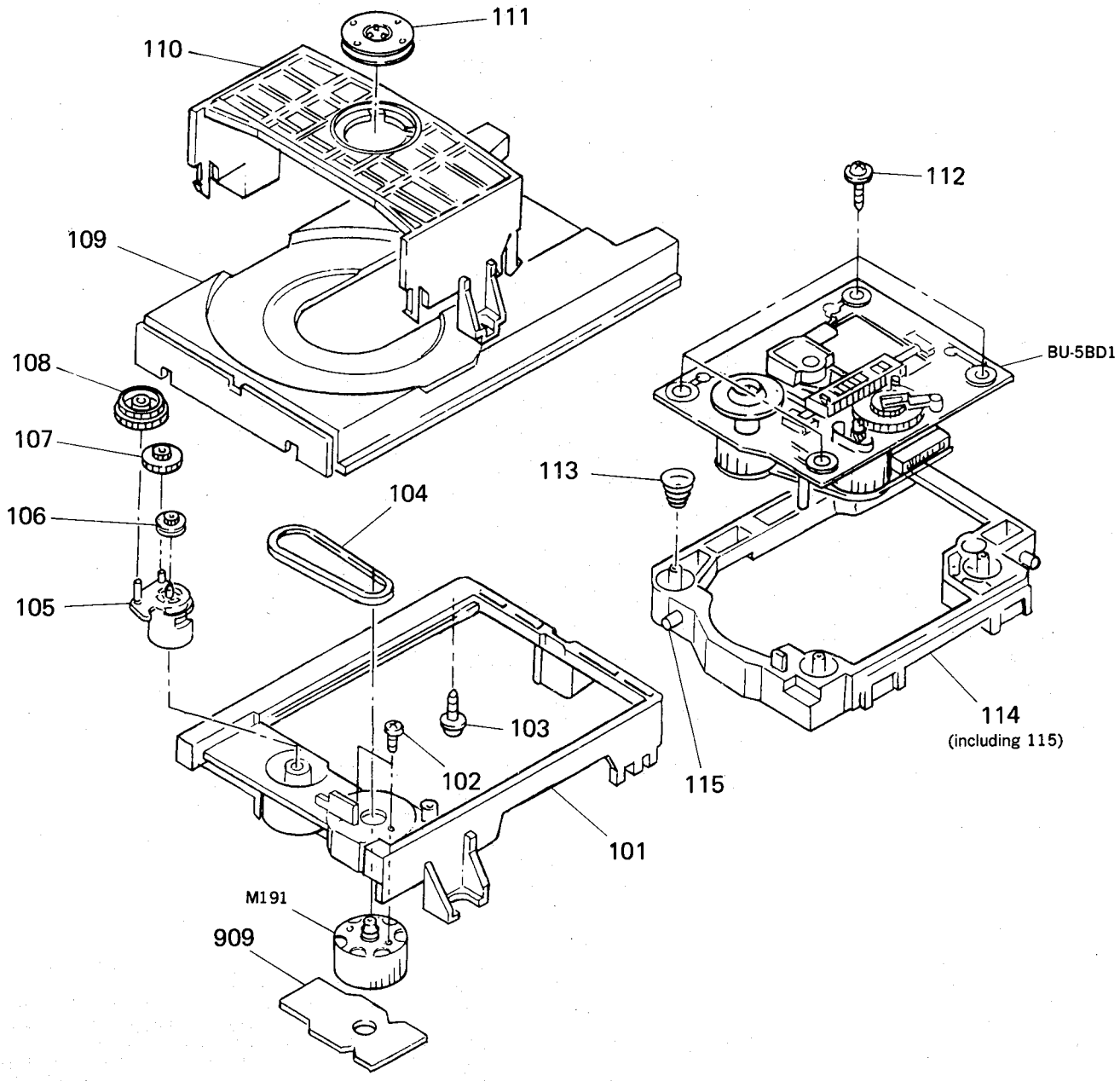
4-2. FRONT PANEL SECTION



Ref.No	Part No.	Description	Remarks
51	X-4941-080-1	(E, EA) PANEL ASSY, FRONT	
51	X-4941-119-1	(AEP, UK)....PANEL ASSY, FRONT	
51	X-4941-433-1	(US, CND)....PANEL ASSY, FRONT	
52	X-4941-107-1	(E, EA)....KNOB (MIC/1) ASSY	
52	X-4941-226-1	(US, CND, AEP, UK)....KNOB (MIC/1) ASSY	
53	4-941-663-01	KNOB (MIC/2)	
54	4-941-661-01	BUTTON (M/C)	
55	4-927-341-01	BUTTON (POWER)	
56	4-922-518-11	KNOB (TIMER)	
57	*4-923-532-31	SPACER, LED	
58	4-941-664-01	KNOB (ECOH)	
59	4-922-531-01	KNOB (A TYPE), LOV	
60	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
61	*4-937-504-01	SHEET (REMOTE CONTROL)	
62	7-682-547-04	SCREW +BVTT 3X6 (S)	
904	*1-637-177-11	PC BOARD, SW	

Ref.No	Part No.	Description	Remarks
905	*1-637-176-11	PC BOARD, DISP	
906	*A-3617-650-A	MOUNTED PCB, MICROPHONE	
906	*A-4617-650-A	MOUNTED PCB, MICROPHONE	
907	*1-637-175-11	PC BOARD, HEADPHONE	
908	*1-637-178-11	PC BOARD, LED	
CN401	1-535-878-11	JUMPER, FILM (WITH TERMINAL)	
D401	8-719-971-49	DIODE BR3371X	
FLD401	1-519-611-11	INDICATOR TUBE, FLUORESCENT	
J501	1-507-796-71	JACK (HEADPHONES)	
J502	1-507-854-00	JACK, LARGE TYPE (MIC 1)	
J503	1-507-854-00	JACK, LARGE TYPE (MIC 2)	
RV501	1-238-487-11	RES, VAR, CARBON 20K/20K (HEADPHONES LEVLE)	
RV502	1-241-311-11	RES, VAR, CARBON 50K (WITH SW) (DIGITAL ECHO)	
RV503	1-241-310-11	RES, VAR, CARBON 50K/50K (MIC VOLUME)	

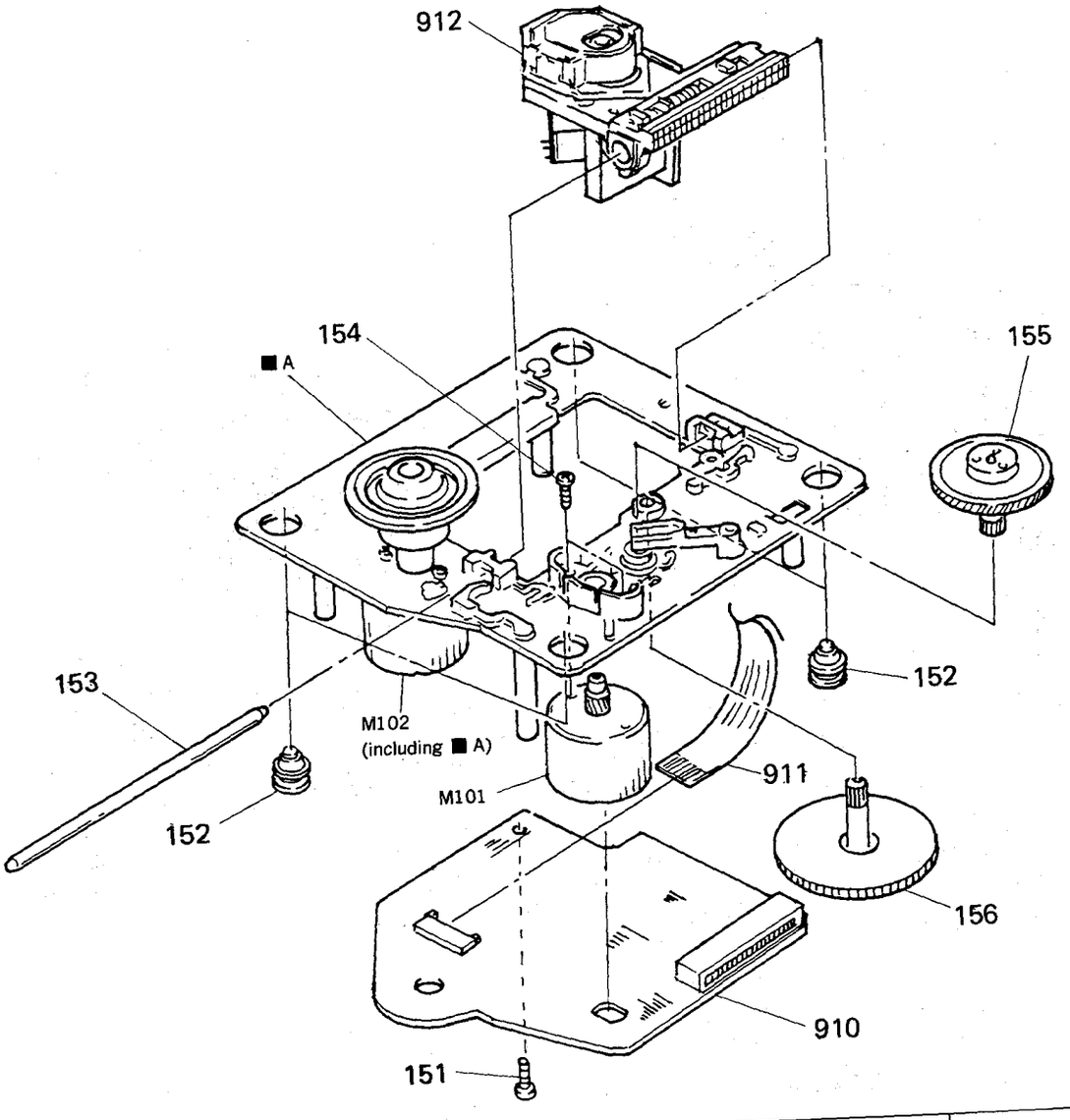
4-3. MD BLOCK (CDM14-5BD1) SECTION



Ref.No	Part No.	Description	Remarks
101	4-933-111-01	CHASSIS (MD)	
102	7-621-775-10	SCREW +B 2.6X4	
103	*4-917-583-21	BRACKET, YOKE	
104	4-927-649-01	BELT	
105	4-933-109-01	CAM	
106	4-927-651-01	PULLEY (S)	
107	4-927-628-01	GEAR (C)	
108	4-933-107-01	GEAR (PL)	
109	4-933-112-01	TABLE, DISK	

Ref.No	Part No.	Description	Remarks
110	4-933-110-01	HOLDER (MG)	
111	*1-452-538-11	MAGNET	
112	4-933-134-01	SCREW (+PTPWH M2.6X6)	
113	4-917-541-01	SPRING (B)	
114	4-933-129-01	HOLDER (BU)	
115	4-933-108-01	SHAFT (CAM)	
909	*1-632-202-11	PC BOARD, LOADING	
M191	A-4604-363-A	MOTOR (L) ASSY	

4-4. OPTICAL PICK-UP BLOCK (BU-5BD1) ASSEMBLY



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description	Remarks
151	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
152	4-933-126-03	INSULATOR (A)	
153	4-917-565-01	SHAFT, SLED	
154	7-621-255-15	SCREW +P 2X3	
155	4-917-567-01	GEAR (M)	
156	4-917-564-01	GEAR (P), FLATNESS	

Ref.No	Part No.	Description	Remarks
910	*A-4617-161-A	MOUNTED PCB, BD	
911	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
912	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A	
M101	X-4917-523-3	MOTOR ASSY (SLED)	
M102	X-4917-504-1	MOTOR ASSY (SPINDLE)	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

- CND: Canadian model
- EA: Saudi Arabia model

Ref.No	Part No.	Description
901	*A-4617-647-A	(AEP, UK)....MOUNTED PCB, MAIN
901	*A-4617-651-A	(E, EA)....MOUNTED PCB, MAIN
901	*A-4617-910-A	(US, CND)....MOUNTED PCB, MAIN
902	⚠1-575-653-21	(E)....CORD, POWER
903	1-575-160-11	WIRE, FLAT TYPE (22 CORE)
904	*1-637-177-11	PC BOARD, SW
905	*1-637-176-11	PC BOARD, DISP
906	*A-4617-650-A	MOUNTED PCB, MICROPHONE
907	*1-637-175-11	PC BOARD, HEADPHONE
908	*1-637-178-11	PC BOARD, LED
909	*1-632-202-11	PC BOARD, LODING
910	*A-4617-161-A	MOUNTED PCB, BD
911	1-575-001-11	WIRE, FLAT TYPE (12 CORE)
912	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A
913	⚠1-569-007-11	(E)....ADAPTER, CONVERSION 2P
914	⚠1-569-008-11	(EA)....ADAPTER, CONVERSION 2P
915	⚠1-575-651-21	(AEP, EA)....CORD, POWER
916	⚠1-558-946-21	(UK)....CORD, POWER
917	⚠1-590-836-11	(US, CND)....CORD, POWER

CAPACITOR

C101	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C102	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C103	1-126-163-11	ELECT	4.7MF	20%	16V
C104	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C105	1-126-154-11	ELECT	47MF	20%	6.3V
C106	1-126-154-11	ELECT	47MF	20%	6.3V
C107	1-126-154-11	ELECT	47MF	20%	6.3V
C108	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C109	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C110	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C111	1-131-367-00	TANTALUM	22MF	20%	16V
C112	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C113	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C114	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C115	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C117	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C118	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C119	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C120	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C151	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C152	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C153	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C154	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C155	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C171	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C172	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C173	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C174	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C201	1-126-937-11	ELECT	4700MF	20%	16V
C202	1-126-937-11	ELECT	4700MF	20%	16V
C203	1-124-572-11	ELECT	100MF	20%	63V
C204	1-126-059-11	ELECT	10MF	20%	50V
C205	1-126-024-11	ELECT	220MF	20%	16V
C206	1-126-024-11	ELECT	220MF	20%	16V
C207	1-126-301-11	ELECT	1MF	20%	50V
C208	1-126-059-11	ELECT	10MF	20%	50V
C209	1-126-059-11	ELECT	10MF	20%	50V
C210	1-126-012-11	ELECT	470MF	20%	16V
C211	1-126-012-11	ELECT	470MF	20%	16V
C212	1-164-159-11	CERAMIC	0.1MF		50V
C301	1-162-208-31	CERAMIC	24PF	5%	50V
C302	1-162-206-31	CERAMIC	20PF	5%	50V
C303	1-164-159-11	CERAMIC	0.1MF		50V
C304	1-124-994-11	ELECT	100MF	20%	10V
C305	1-126-301-11	ELECT	1MF	20%	50V
C306	1-164-159-11	CERAMIC	0.1MF		50V
C307	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C308	1-164-159-11	CERAMIC	0.1MF		50V
C309	1-162-306-11	CERAMIC	0.01MF	20%	16V
C310	1-126-300-11	ELECT	0.47MF	20%	50V
C311	1-136-161-00	FILM	0.047MF	5%	50V
C312	1-136-153-00	FILM	0.01MF	5%	50V
C313	1-164-159-11	CERAMIC	0.1MF		50V
C314	1-136-169-00	FILM	0.22MF	5%	50V
C315	1-162-199-31	CERAMIC	10PF	5%	50V
C316	1-162-294-31	CERAMIC	0.001MF	10%	50V
C318	1-164-159-11	CERAMIC	0.1MF		50V
C319	1-164-159-11	CERAMIC	0.1MF		50V
C320	1-164-159-11	CERAMIC	0.1MF		50V
C321	1-126-012-11	ELECT	470MF	20%	16V
C322	1-126-012-11	ELECT	470MF	20%	16V
C323	1-130-481-00	MYLAR	0.0068MF	5%	50V
C324	1-130-475-00	MYLAR	0.0022MF	5%	50V
C325	1-130-481-00	MYLAR	0.0068MF	5%	50V
C326	1-130-475-00	MYLAR	0.0022MF	5%	50V
C327	1-130-485-00	MYLAR	0.015MF	5%	50V
C328	1-130-482-00	MYLAR	0.0082MF	5%	50V
C329	1-130-485-00	MYLAR	0.015MF	5%	50V
C330	1-130-482-00	MYLAR	0.0082MF	5%	50V
C331	1-124-910-11	ELECT	47MF	20%	25V
C332	1-124-910-11	ELECT	47MF	20%	25V
C333	1-126-059-11	ELECT	10MF	20%	50V
C334	1-126-059-11	ELECT	10MF	20%	50V
C335	1-164-159-11	CERAMIC	0.1MF		50V
C336	1-164-159-11	CERAMIC	0.1MF		50V
C337	1-164-159-11	CERAMIC	0.1MF		50V
C338	1-164-159-11	CERAMIC	0.1MF		50V
C339	1-164-159-11	CERAMIC	0.1MF		50V
C340	1-126-049-11	ELECT	22MF	20%	25V
C341	1-126-049-11	ELECT	22MF	20%	25V
C342	1-130-471-00	MYLAR	0.001MF	5%	50V
C343	1-130-471-00	MYLAR	0.001MF	5%	50V
C344	1-124-994-11	ELECT	100MF	20%	10V
C345	1-124-994-11	ELECT	100MF	20%	10V
C346	1-124-994-11	ELECT	100MF	20%	10V
C347	1-164-159-11	CERAMIC	0.1MF		50V
C348	1-126-301-11	ELECT	1MF	20%	50V
C391	1-124-910-11	ELECT	47MF	20%	25V
C392	1-162-199-31	CERAMIC	10PF	5%	50V

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description			
C401	1-164-159-11	CERAMIC	0.1MF		50V
C402	1-164-159-11	CERAMIC	0.1MF		50V
C403	1-164-159-11	CERAMIC	0.1MF		50V
C404	1-164-159-11	CERAMIC	0.1MF		50V
C405	1-126-154-11	ELECT	47MF	20%	6.3V
C406	1-164-159-11	CERAMIC	0.1MF		50V
C501	1-162-294-31	CERAMIC	0.001MF	10%	50V
C502	1-162-294-31	CERAMIC	0.001MF	10%	50V
C503	1-164-159-11	CERAMIC	0.1MF		50V
C504	1-124-465-00	ELECT	0.47MF	20%	50V
C505	1-126-301-11	ELECT	1MF	20%	50V
C506	1-162-294-31	CERAMIC	0.001MF	10%	50V
C507	1-162-290-31	CERAMIC	470PF	10%	50V
C508	1-126-300-11	ELECT	0.47MF	20%	50V
C509	1-126-301-11	ELECT	1MF	20%	50V
C510	1-162-294-31	CERAMIC	0.001MF	10%	50V
C511	1-162-290-31	CERAMIC	470PF	10%	50V
C512	1-126-300-11	ELECT	0.47MF	20%	50V
C513	1-124-994-11	ELECT	100MF	20%	10V
C514	1-124-994-11	ELECT	100MF	20%	10V
C515	1-126-301-11	ELECT	1MF	20%	50V
C516	1-126-301-11	ELECT	1MF	20%	50V
C517	1-130-474-00	MYLAR	0.0018MF	5%	50V
C518	1-162-306-11	CERAMIC	0.01MF	20%	16V
C519	1-164-159-11	CERAMIC	0.1MF		50V
C520	1-136-165-00	FILM	0.1MF	5%	50V
C521	1-136-165-00	FILM	0.1MF	5%	50V
C522	1-164-159-11	CERAMIC	0.1MF		50V
C524	1-126-301-11	ELECT	1MF	20%	50V
C525	1-126-177-11	ELECT	100MF	20%	6.3V
C526	1-124-910-11	ELECT	47MF	20%	25V
C527	1-126-163-11	ELECT	4.7MF	20%	25V
C528	1-136-165-00	FILM	0.1MF	5%	50V
C529	1-162-282-31	CERAMIC	100PF	10%	50V
C530	1-124-465-00	ELECT	0.47MF	20%	50V
C531	1-136-165-00	FILM	0.1MF	5%	50V
C532	1-161-329-00	CERAMIC	0.0068MF	30%	16V
C533	1-162-215-31	CERAMIC	47PF	5%	50V
C534	1-164-159-11	CERAMIC	0.1MF		50V
C535	1-124-589-11	ELECT	47MF	20%	16V
C536	1-124-589-11	ELECT	47MF	20%	16V
CN101	1-568-796-11	SOCKET, CONNECTOR 22P			
CN102	1-568-795-11	SOCKET, CONNECTOR 12P			
CN103	*1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN301	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN401	1-535-878-11	JUMPER, FILM (WITH TERMINAL)			
CNP201	*1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP301	*1-568-844-11	SOCKET, CONNECTOR 29P			
CNP302	*1-568-822-11	SOCKET, CONNECTOR 22P			
CNP303	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP304	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP402	*1-564-339-00	PIN, CONNECTOR 5P			
CNP403	*1-564-338-00	PIN, CONNECTOR 4P			
CNP404	*1-564-339-61	PIN, CONNECTOR 5P			
CNP405	*1-564-336-00	PIN, CONNECTOR 2P			
CNP501	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP502	*1-564-337-00	PIN, CONNECTOR 3P			
CNP503	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CT301	1-141-304-21	TRIMMER, CERAMIC			
D101	8-719-105-72	DIODE RD4.7M-B1			
D201	8-719-200-82	DIODE 11E2			
D202	8-719-200-82	DIODE 11E2			
D203	8-719-200-82	DIODE 11E2			
D204	8-719-200-82	DIODE 11E2			

Ref.No	Part No.	Description
D205	8-719-200-82	DIODE 11E2
D206	8-719-200-82	DIODE 11E2
D207	8-719-109-85	DIODE RD5.1ES-2B
D208	8-719-933-51	DIODE HZS7C3L
D209	8-719-109-97	DIODE RD6.8ES-2B
D301	8-719-107-94	DIODE 1SS202-1
D401	8-719-971-49	DIODE BR3371X
D402	8-719-971-49	DIODE BR3371X
D501	8-719-107-94	DIODE 1SS202-1
D502	8-719-107-94	DIODE 1SS202-1
D503	8-719-107-94	DIODE 1SS202-1
FLD401	1-519-611-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-050-82	IC CXA1372Q
IC102	8-759-821-94	IC LA6532M
IC103	8-759-633-65	IC M54641L
IC201	8-759-630-21	IC M5290P-16
IC202	8-759-633-42	IC M5293L
IC301	8-752-337-26	IC CXD2500AQ
IC302	8-752-337-09	IC CXD2554P
IC303	8-759-917-18	IC SN74HCU04N
IC304	8-759-998-22	IC PCM56P
IC305	8-759-998-22	IC PCM56P
IC306	8-759-501-96	IC BA7042
IC307	8-759-605-44	IC M74HC6004P
IC308	8-759-945-58	IC RC4558P
IC309	8-759-945-58	IC RC4558P
IC310	8-759-945-58	IC RC4558P
IC311	8-759-945-58	IC RC4558P
IC312	8-759-945-58	IC RC4558P
IC313	8-759-000-49	IC TC4066BPHB
IC314	8-759-945-58	IC RC4558P
IC401	8-752-816-98	IC CXP50112-086Q
IC402	8-749-920-83	IC GP1U52XB
IC501	8-759-981-89	IC RC4556S
IC502	8-759-634-50	IC M5218AL
IC503	8-759-634-50	IC M5218AL
IC504	8-759-604-81	IC M50195P
IC505	8-759-821-13	IC LM3364K-15
IC506	8-759-981-68	IC LM2903S
J101	1-216-295-00	METAL GLAZE 0 5% 1/10W
J102	1-216-295-00	METAL GLAZE 0 5% 1/10W
J301	1-569-442-11	JACK, PIN 2P (LINE OUT)
J501	1-507-796-71	JACK (HEADPHONES)
J502	1-507-854-00	JACK, LARGE TYPE (MIC 1)
J503	1-507-854-00	JACK, LARGE TYPE (MIC 2)
M101	X-4917-523-3	MOTOR ASSY (SLED)
M102	X-4917-504-1	MOTOR ASSY (SPINDLE)
M191	A-4604-363-A	MOTOR (L) ASSY
PS201⚠	1-532-637-00	(AEP, UK, E, EA)....LINK, IC
PS202⚠	1-532-637-00	(AEP, UK, E, EA)....LINK, IC
Q101	8-729-901-01	TRANSISTOR DTC144EK
Q201	8-729-111-67	TRANSISTOR 2SB1274SA-R
Q202	8-729-808-77	TRANSISTOR 2SD1913SA-R
Q203	8-729-111-67	TRANSISTOR 2SB1274SA-R
Q204	8-729-230-45	TRANSISTOR 2SC2458-YGR
Q205	8-729-900-89	TRANSISTOR DTC144ES
Q206	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q207	8-729-900-89	TRANSISTOR DTC144ES
Q301	8-729-900-89	TRANSISTOR DTC144ES
Q302	8-729-900-65	TRANSISTOR DTA144ES
Q303	8-729-900-65	TRANSISTOR DTA144ES
Q305	8-729-141-30	TRANSISTOR 2SC3623A-LK

Ref.No	Part No.	Description
Q306	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q307	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q308	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q309	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q310	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q311	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q312	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q314	8-729-900-65	TRANSISTOR DTA144ES
Q315	8-729-900-65	TRANSISTOR DTA144ES
Q316	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q317	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q501	8-729-900-65	TRANSISTOR DTA144ES
Q502	8-729-900-65	TRANSISTOR DTA144ES
Q503	8-729-141-30	TRANSISTOR 2SC3623A-LK
Q504	8-729-141-30	TRANSISTOR 2SC3623A-LK

RESISTOR

Ref.No	Part No.	Description			
R101	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R102	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R103	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R104	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R105	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R106	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R107	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R108	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R109	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R111	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R112	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R113	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R114	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R154	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R155	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R156	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R157	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R158	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R159	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R171	1-216-001-00	METAL GLAZE	10	5%	1/10W
R172	1-216-001-00	METAL GLAZE	10	5%	1/10W
R173	1-216-001-00	METAL GLAZE	10	5%	1/10W
R174	1-216-001-00	METAL GLAZE	10	5%	1/10W
R201	1-249-425-11	CARBON	4.7K	5%	1/4W
R202	1-249-425-11	CARBON	4.7K	5%	1/4W
R203	1-249-438-11	CARBON	56K	5%	1/4W
R204	1-249-429-11	CARBON	10K	5%	1/4W
R205	1-249-425-11	CARBON	4.7K	5%	1/4W
R206	1-249-417-11	CARBON	1K	5%	1/4W
R207	1-249-429-11	CARBON	10K	5%	1/4W
R208	1-249-411-11	CARBON	330	5%	1/4W
R209	1-249-410-11	CARBON	270	5%	1/4W
R210	1-249-423-11	CARBON	3.3K	5%	1/4W
R211	1-249-435-11	CARBON	33K	5%	1/4W
R301	1-249-417-11	CARBON	1K	5%	1/4W
R302	1-249-417-11	CARBON	1K	5%	1/4W
R303	1-249-417-11	CARBON	1K	5%	1/4W
R304	1-249-417-11	CARBON	1K	5%	1/4W
R305	1-249-411-11	CARBON	330	5%	1/4W
R306	1-249-417-11	CARBON	1K	5%	1/4W
R307	1-249-417-11	CARBON	1K	5%	1/4W
R308	1-249-417-11	CARBON	1K	5%	1/4W
R309	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-441-11	CARBON	100K	5%	1/4W
R311	1-249-423-11	CARBON	3.3K	5%	1/4W

Ref.No	Part No.	Description			
R312	1-249-423-11	CARBON	3.3K	5%	1/4W
R313	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-215-460-00	METAL	43K	1%	1/6W
R315	1-215-461-00	METAL	47K	1%	1/6W
R316	1-215-461-00	METAL	47K	1%	1/6W
R317	1-215-461-00	METAL	47K	1%	1/6W
R318	1-249-434-11	CARBON	27K	5%	1/4W
R319	1-249-437-11	CARBON	47K	5%	1/4W
R320	1-249-411-11	CARBON	330	5%	1/4W
R321	1-249-441-11	CARBON	100K	5%	1/4W
R322	1-249-433-11	CARBON	22K	5%	1/4W
R323	1-249-411-11	CARBON	330	5%	1/4W
R324	1-249-411-11	CARBON	330	5%	1/4W
R325	1-249-411-11	CARBON	330	5%	1/4W
R326	1-249-413-11	CARBON	470	5%	1/4W
R327	1-249-413-11	CARBON	470	5%	1/4W
R328	1-249-417-11	CARBON	1K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W
R330	1-249-441-11	CARBON	100K	5%	1/4W
R331	1-249-441-11	CARBON	100K	5%	1/4W
R332	1-249-435-11	CARBON	33K	5%	1/4W
R333	1-249-429-11	CARBON	10K	5%	1/4W
R334	1-249-435-11	CARBON	33K	5%	1/4W
R335	1-249-429-11	CARBON	10K	5%	1/4W
R336	1-249-441-11	CARBON	100K	5%	1/4W
R337	1-249-425-11	CARBON	4.7K	5%	1/4W
R338	1-249-429-11	CARBON	10K	5%	1/4W
R339	1-249-425-11	CARBON	4.7K	5%	1/4W
R340	1-249-429-11	CARBON	10K	5%	1/4W
R341	1-249-425-11	CARBON	4.7K	5%	1/4W
R342	1-249-417-11	CARBON	1K	5%	1/4W
R343	1-249-417-11	CARBON	1K	5%	1/4W
R344	1-249-425-11	CARBON	4.7K	5%	1/4W
R345	1-249-425-11	CARBON	4.7K	5%	1/4W
R346	1-249-429-11	CARBON	10K	5%	1/4W
R347	1-249-425-11	CARBON	4.7K	5%	1/4W
R348	1-249-425-11	CARBON	4.7K	5%	1/4W
R349	1-249-429-11	CARBON	10K	5%	1/4W
R350	1-249-425-11	CARBON	4.7K	5%	1/4W
R351	1-249-441-11	CARBON	100K	5%	1/4W
R352	1-249-441-11	CARBON	100K	5%	1/4W
R353	1-249-429-11	CARBON	10K	5%	1/4W
R354	1-249-429-11	CARBON	10K	5%	1/4W
R355	1-249-435-11	CARBON	33K	5%	1/4W
R356	1-249-435-11	CARBON	33K	5%	1/4W
R357	1-249-441-11	CARBON	100K	5%	1/4W
R358	1-249-441-11	CARBON	100K	5%	1/4W
R359	1-249-441-11	CARBON	100K	5%	1/4W
R360	1-249-417-11	CARBON	1K	5%	1/4W
R361	1-249-423-11	CARBON	3.3K	5%	1/4W
R362	1-249-411-11	CARBON	330	5%	1/4W
R363	1-249-411-11	CARBON	330	5%	1/4W
R364	1-249-436-11	CARBON	39K	5%	1/4W
R365	1-249-429-11	CARBON	10K	5%	1/4W
R366	1-249-441-11	CARBON	100K	5%	1/4W
R367	1-249-411-11	CARBON	330	5%	1/4W
R368	1-249-414-11	CARBON	560	5%	1/4W
R369	1-249-433-11	CARBON	22K	5%	1/4W
R370	1-249-423-11	CARBON	3.3K	5%	1/4W
R371	1-249-429-11	CARBON	10K	5%	1/4W
R372	1-249-429-11	CARBON	10K	5%	1/4W
R373	1-249-436-11	CARBON	39K	5%	1/4W
R374	1-249-441-11	CARBON	100K	5%	1/4W
R375	1-249-411-11	CARBON	330	5%	1/4W
R376	1-249-414-11	CARBON	560	5%	1/4W

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description			
R377	1-249-423-11	CARBON	3.3K	5%	1/4W
R378	1-249-433-11	CARBON	22K	5%	1/4W
R379	1-249-441-11	CARBON	100K	5%	1/4W
R380	1-249-417-11	CARBON	1K	5%	1/4W
R382	1-249-441-11	CARBON	100K	5%	1/4W
R383	1-249-405-11	CARBON	100	5%	1/4W
R384	1-249-405-11	CARBON	100	5%	1/4W
R385	1-249-425-11	CARBON	4.7K	5%	1/4W
R386	1-249-425-11	CARBON	4.7K	5%	1/4W
R387	1-249-441-11	CARBON	100K	5%	1/4W
R388	1-249-429-11	CARBON	10K	5%	1/4W
R389	1-249-423-11	CARBON	3.3K	5%	1/4W
R390	1-249-429-11	CARBON	10K	5%	1/4W
R392	1-249-425-11	CARBON	4.7K	5%	1/4W
R393	1-249-425-11	CARBON	4.7K	5%	1/4W
R394	1-249-429-11	CARBON	10K	5%	1/4W
R395	1-249-429-11	CARBON	10K	5%	1/4W
R396	1-249-425-11	CARBON	4.7K	5%	1/4W
R397	1-249-425-11	CARBON	4.7K	5%	1/4W
R398	1-249-417-11	CARBON	1K	5%	1/4W
R399	1-249-433-11	CARBON	22K	5%	1/4W
R401	1-249-425-11	CARBON	4.7K	5%	1/4W
R402	1-249-425-11	CARBON	4.7K	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-249-433-11	CARBON	22K	5%	1/4W
R405	1-249-411-11	CARBON	330	5%	1/4W
R406	1-249-411-11	CARBON	330	5%	1/4W
R407	1-249-433-11	CARBON	22K	5%	1/4W
R408	1-249-433-11	CARBON	22K	5%	1/4W
R409	1-249-433-11	CARBON	22K	5%	1/4W
R411	1-249-433-11	CARBON	22K	5%	1/4W
R412	1-249-433-11	CARBON	22K	5%	1/4W
R413	1-249-433-11	CARBON	22K	5%	1/4W
R414	1-249-433-11	CARBON	22K	5%	1/4W
R415	1-249-433-11	CARBON	22K	5%	1/4W
R416	1-249-433-11	CARBON	22K	5%	1/4W
R417	1-249-433-11	CARBON	22K	5%	1/4W
R418	1-249-433-11	CARBON	22K	5%	1/4W
R419	1-249-433-11	CARBON	22K	5%	1/4W
R420	1-249-433-11	CARBON	22K	5%	1/4W
R501	1-249-417-11	CARBON	1K	5%	1/4W
R502	1-249-423-11	CARBON	3.3K	5%	1/4W
R503	1-249-431-11	CARBON	15K	5%	1/4W
R504	1-249-402-11	CARBON	56	5%	1/4W
R505	1-249-417-11	CARBON	1K	5%	1/4W
R506	1-249-423-11	CARBON	3.3K	5%	1/4W
R507	1-249-431-11	CARBON	15K	5%	1/4W
R508	1-249-402-11	CARBON	56	5%	1/4W
R509	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R511	1-249-411-11	CARBON	330	5%	1/4W
R512	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-249-413-11	CARBON	470	5%	1/4W
R514	1-249-431-11	CARBON	15K	5%	1/4W
R515	1-249-429-11	CARBON	10K	5%	1/4W
R516	1-249-411-11	CARBON	330	5%	1/4W
R517	1-249-429-11	CARBON	10K	5%	1/4W
R518	1-249-413-11	CARBON	470	5%	1/4W
R519	1-249-431-11	CARBON	15K	5%	1/4W
R520	1-249-429-11	CARBON	10K	5%	1/4W
R521	1-249-425-11	CARBON	4.7K	5%	1/4W
R522	1-249-429-11	CARBON	10K	5%	1/4W
R523	1-249-437-11	CARBON	47K	5%	1/4W
R524	1-249-437-11	CARBON	47K	5%	1/4W
R525	1-249-429-11	CARBON	10K	5%	1/4W

Ref.No	Part No.	Description			
R526	1-249-433-11	CARBON	22K	5%	1/4W
R527	1-249-433-11	CARBON	22K	5%	1/4W
R528	1-249-429-11	CARBON	10K	5%	1/4W
R529	1-249-423-11	CARBON	3.3K	5%	1/4W
R530	1-249-433-11	CARBON	22K	5%	1/4W
R531	1-249-421-11	CARBON	2.2K	5%	1/4W
R532	1-249-441-11	CARBON	100K	5%	1/4W
R533	1-249-435-11	CARBON	33K	5%	1/4W
R534	1-249-425-11	CARBON	4.7K	5%	1/4W
R535	1-249-423-11	CARBON	3.3K	5%	1/4W
R536	1-249-437-11	CARBON	47K	5%	1/4W
R537	1-249-433-11	CARBON	22K	5%	1/4W
R538	1-249-440-11	CARBON	82K	5%	1/4W
R539	1-249-429-11	CARBON	10K	5%	1/4W
R540	1-249-421-11	CARBON	2.2K	5%	1/4W
R541	1-249-433-11	CARBON	22K	5%	1/4W
R542	1-247-903-00	CARBON	1M	5%	1/4W
R545	1-249-441-11	CARBON	100K	5%	1/4W
R546	1-249-429-11	CARBON	10K	5%	1/4W
RV101	1-238-016-11	RES, ADJ, CARBON 10K			
RV102	1-238-016-11	RES, ADJ, CARBON 10K			
RV501	1-238-487-11	RES, VAR, CARBON 20K/20K (HEADPHONES LEVEL)			
RV502	1-241-311-11	RES, VAR, CARBON 50K (WITH SW) (DIGITAL ECHO)			
RV503	1-241-310-11	RES, VAR, CARBON 50K/50K (MIC VOLUME)			
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)			
S191	1-572-086-11	SWITCH, LEAF (LOAD OUT)			
S192	1-572-086-11	SWITCH, LEAF (LOAD IN)			
S401	1-570-157-51	SWITCH, SLIDE (AUTO PAUSE)			
S402	1-571-305-11	SWITCH, PUSH (1 KEY) (POWER)			
S403	1-554-303-21	SWITCH, KEY BOARD (REPEAT)			
S404	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE)			
S405	1-554-303-21	SWITCH, KEY BOARD (PROGRAM)			
S406	1-554-303-21	SWITCH, KEY BOARD (1)			
S407	1-554-303-21	SWITCH, KEY BOARD (2)			
S408	1-554-303-21	SWITCH, KEY BOARD (3)			
S409	1-554-303-21	SWITCH, KEY BOARD (4)			
S410	1-554-303-21	SWITCH, KEY BOARD (5)			
S411	1-554-303-21	SWITCH, KEY BOARD (6)			
S412	1-554-303-21	SWITCH, KEY BOARD (7)			
S413	1-554-303-21	SWITCH, KEY BOARD (8)			
S414	1-554-303-21	SWITCH, KEY BOARD (9)			
S415	1-554-303-21	SWITCH, KEY BOARD (10)			
S416	1-554-303-21	SWITCH, KEY BOARD (11)			
S417	1-554-303-21	SWITCH, KEY BOARD (12)			
S418	1-554-303-21	SWITCH, KEY BOARD (CHECK)			
S419	1-554-303-21	SWITCH, KEY BOARD (CLEAR)			
S420	1-554-303-21	SWITCH, KEY BOARD (>12)			
S421	1-554-303-21	SWITCH, KEY BOARD (ON/OFF)			
S422	1-554-303-21	SWITCH, KEY BOARD (PITCH CONTROL −)			
S423	1-554-303-21	SWITCH, KEY BOARD (PITCH CONTROL +)			
S424	1-554-303-21	SWITCH, KEY BOARD (TIME)			
S425	1-554-303-21	SWITCH, KEY BOARD (⏮ ◀◀)			
S426	1-554-303-21	SWITCH, KEY BOARD (▶▶ ⏭)			
S427	1-554-303-21	SWITCH, KEY BOARD (OPEN/CLOSE ⏏)			
S428	1-554-303-21	SWITCH, KEY BOARD (KARAOKE PON/VOCAL REDUCTION)			
S429	1-554-303-21	SWITCH, KEY BOARD (▷)			
S430	1-554-303-21	SWITCH, KEY BOARD (▮▮)			
S431	1-554-303-21	SWITCH, KEY BOARD (■)			
SW201 ⚠	1-571-722-11	(E, EA)....SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)			
T901 ⚠	1-449-921-11	(US, CND)....TRANSFORMER, POWER			
T901 ⚠	1-449-922-11	(AEP, UK)....TRANSFORMER, POWER			
T901 ⚠	1-449-923-11	(E, EA)....TRANSFORMER, POWER			